

## *San Joaquin Valley Unified Air Pollution Control District*

**PERMIT UNIT:** C-447-2-2

**EXPIRATION DATE:** 6/30/2000

**EQUIPMENT DESCRIPTION:**

142.0 MMBTU/HR NEBRASKA BOILER, S/N D2430, MODEL 84 EQUIPPED WITH TODD LOW-NOX BURNER AND FLUE GAS RECIRCULATION.

### **Permit Unit Requirements**

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1. Particulate matter emissions shall not exceed 0.1 grain/dscf at operating conditions, nor 0.1 grain/dscf calculated to 12% CO<sub>2</sub>, nor 10 lb/hr. [District Rule 4201 and District Rule 4301, 5.1 and 5.2.3] Federally Enforceable Through Title V Permit
2. Unit shall be fired on PUC-regulated natural gas only. [District Rule 4301, Section 5.2.1; Fresno County Rule 406; 40 CFR 60.42c(d)] Federally Enforceable Through Title V Permit
3. Operator shall provide that fuel hhv be certified by third party fuel supplier or determined annually by: ASTM D 240-87 or D 2382-88 for liquid hydrocarbon fuels; ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89 for gaseous fuels. [District Rule 2520, 9.4.2; 4305, 6.2.1; and 4351, 6.2.1] Federally Enforceable Through Title V Permit
4. Operator shall perform annual source testing for NO<sub>x</sub> (ppmv) to demonstrate compliance with 0.036 lb/MMBtu limit according to EPA Method 7E (or ARB Method 100), stack gas oxygen by EPA Method 3 or 3A (or ARB Method 100), NO<sub>x</sub> emission rate (heat input basis) by EPA Method 19, stack gas velocities by EPA Method 2, and stack gas moisture content by EPA Method 4. Gaseous fired units shall test at least once every 36 months, if compliance is shown for 2 consecutive years. Annual source testing shall resume if any test fails to show compliance. [District Rule 4305, 6.2.2, 6.2.4-7 and 4351, 6.2.2 & 6.2.4-7, & 6.3] Federally Enforceable Through Title V Permit
5. Nitrogen oxide (Nox) emission concentrations in ppmv referenced at dry stack emissions shall be corrected to 3% O<sub>2</sub> and lb/MMBtu rates shall be calculated as lb NO<sub>2</sub>/MMBtu of heat input (hhv). [District Rule 4305, 8.1 and 4351, 8.1] Federally Enforceable Through Title V Permit
6. Operator shall maintain copies of fuel invoices and supplier certifications. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit

7. Operator shall perform annual source testing for CO according to EPA Method 10 or ARB Method 100. If compliance is shown for 2 consecutive years, gaseous fired units shall test not less than once every 36 months. Test results submitted to the District from individual units that are identical to a group of units, in terms of rated capacity, operational conditions, fuel used, and control method, may satisfy these requirements. [District Rule 1081; District Rule 2520, Section 9.4.2; District Rule 4305, Sections 6.2.3 and 6.3] Federally Enforceable Through Title V Permit

8. Nox emissions shall not exceed 0.10 pounds per million Btu including periods of startup, shutdown, or malfunction. Compliance with the 0.10 pound per million Btu limitation shall be based on a 30-day rolling average of the Nox concentration calculated from CEMS. All performance testing shall be done in compliance with 40 CFR 60.8. [40 CFR 60.44b paragraph c, e, h, and l] Federally Enforceable Through Title V Permit

9. The nitrogen oxide emission rates measured by the CEMS shall be expressed in lb/million Btu or in ng/J. The 1-hour average emission rates shall be calculated using the data points required under Section 60.13(b). The records shall also include a daily emission rate consisting of an averaged 24 hour rolling emission rate. [NSR;40 CFR 60.48b paragraph d] Federally Enforceable Through Title V Permit

10. The procedures under Section 60.13 shall be followed for installation, evaluation, and operation of the CEMS. [40 CFR 60.48b paragraph e] Federally Enforceable Through Title V Permit

11. In cases of CEMS breakdown, malfunction, repairs, calibration checks, and adjustments, emission data shall be obtained as described in paragraph f of 40 CFR 60.48b. [40 CFR 60.48b paragraph f] Federally Enforceable Through Title V Permit

12. The owner shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor for each calendar quarter. [40 CFR 60.49b paragraph d] Federally Enforceable Through Title V Permit

13. The following records shall be kept for each steam generating unit operating day: (1) Calendar date, (2) Average hourly Nox emission rate, (3) Average 30-day emission rate for preceding 30 operating days, (4) Identification of daily Nox limit exceedances including reason for exceedance and the corrective actions taken, (5) Identification of daily CEMS interruptions including reason for interruption and the corrective actions taken, (6) Identification of data exclusions and the reasons for the exclusion, (7) Identification of F factor used for calculations, (8) Identification of times that the pollutant concentration exceeded

the full span of the CEMS, (9) Description of modifications to the CEMS, (10) Results of daily CEMS drift tests and other tests required under appendix F, Procedure 1. [40 CFR 60.49b paragraph g] Federally Enforceable Through Title V Permit

14. The owner shall submit quarterly excess emission reports for any calendar quarter during which there are excess emissions. The owner shall also submit semiannual reports stating that there have been no excess emissions during periods when there have been no excess emissions. [40 CFR 60.49b paragraph h] Federally Enforceable Through Title V Permit

15. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following subsumed Fresno County APCD Rules: 108.1, 404, 406, and 408. [District Rule 2520, Section 13.2] Federally Enforceable Through Title V Permit

16. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements: Rule 1081, 4201, 4202, 4301, 4305, 4351, and 40 CFR 60 subpart Db. [District Rule 2520, Section 13.2] Federally Enforceable Through Title V Permit

17. All emissions measurements used determining compliance with the 0.036 lb-NO<sub>x</sub>/MMBtu emission limit shall be made with the unit operating at a normal firing rate, air-to-fuel ratio, and fuel quality. No determination of compliance with the limits shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for thirty minutes or longer, or during start-up, shut-down, or breakdown. [District Rule 4305, 5.5.2] Federally Enforceable Through Title V Permit

18. Emissions from this boiler shall not exceed 0.036 lb-NO<sub>x</sub>/MMBtu, 200 ppmv CO @ 3% O<sub>2</sub>, 0.0027 lb-VOC/MMBtu, nor 0.0024 lb-PM<sub>10</sub>/MMBtu. [NSR; District Rule 4351, 5.2.2 and 5.4; District Rule 4305, 5.1] Federally Enforceable Through Title V Permit

19. Source testing shall be conducted using the methods and procedures approved by District Rule 1081. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

20. Sampling facilities for source testing shall be provided in accordance with the provisions of Rule 1081 (Source Sampling). [District Rule 1081]

21. The results of each source test shall be submitted to the District within 60 days after completion of the test. [District Rule 1081]

22. A Continuous Emissions Monitoring System shall be in place and operating whenever the facility is operating. Nox emissions in ppmv (as NO<sub>2</sub> corrected to 3% O<sub>2</sub>), and O<sub>2</sub> concentrations must be recorded continuously. The 1-hour average emissions rates shall be calculated using the data points required under Section 60.13(b). The records shall also include a daily emission rate consisting of an averaged 24 hour rolling emission rate. [NSR; 40 CFR 60.48b paragraph b, c, and d] Federally Enforceable Through Title V Permit

23. Daily summaries of continuous monitoring records for each calendar quarter shall be submitted to the District within 30 days of the end of the calendar quarter. [40 CFR 60.49b paragraph I] Federally Enforceable Through Title V Permit

24. Operation and calibration of the Continuous Emissions Monitoring System shall be in accordance with the requirements of 40 CFR, Part 60, Appendix F. [District Rule 4001] Federally Enforceable Through Title V Permit